

# Work Order ID 76452

**\*76452\***

Page 1

Tuesday, November 15, 2011 9:20:45 AM

Item ID: D3391-025 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Aft Tube Assembly  
Start Date: 11/14/2011 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 11/16/2011 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference: REWORK PER REV I

Approvals: Process Plan: *mf* Date: *11-11-15* Tooling: Date: Run Start **\*NR1\***  
QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3391    | 1            |

300 0.00

**\*300\***

Packaging Memo 0.00  
Packaging PULL FROM STOCK D3391-025 B73013  
AND BRING TO FINISHING

*BR 11-11-17*

310 0.00

**\*310\***

Skidtubes Memo 0.00  
Skidtubes REMOVE WEARPLATES AND PUT BACK INTO STOCK :  
REMOVE GASKETS AND SCRAP

*1 BR 11-11-17*

D3537-1 X 1  
D3537-7 X 1  
D3553-1 X 1  
D3553-3 X 1

DISCARD HARDWARE AND PICK NEW

RE-ASSEMBLE WITH NEW WEARPLATES AND NEW HARDWARE

*To Rev I*

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Work Order ID 76452

Tuesday, November 15, 2011 9:20:45 AM

**\*76452\***

Page 2

Item ID: D3391-025 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Aft Tube Assembly  
Start Date: 11/14/2011 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 11/16/2011 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference: REWORK PER REV I

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                      | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 320                            | QC5- Inspect part completeness to step on W/O | 0.00                 |         |        |              |               |               |                  |                |
| <b>*320*</b>                   |   | 0.00                 |         |        |              |               |               |                  |                |
| QC                             | Memo  |                      |         |        |              |               |               |                  |                |
| Quality Control                |   |                      |         |        |              |               |               |                  |                |
| 330                            | Identify as per dwg & Stock Location: _____   | 0.00                 |         |        |              |               |               |                  |                |
| <b>*330*</b>                   |   | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      | Memo  |                      |         |        |              |               |               |                  |                |
| Packaging                      |   |                      |         |        |              |               |               |                  |                |
| 340                            | QC21- Final Inspection - Work Order Release   | 0.00                 |         |        |              |               |               |                  |                |
| <b>*340*</b>                   |   | 0.00                 |         |        |              |               |               |                  |                |
| QC                             | Memo  |                      |         |        |              |               |               |                  |                |
| Quality Control                |   |                      |         |        |              |               |               |                  |                |

Run Start **\*NR1\***  
Stop **\*NR2\***

*11/14/18*

*11/11/18*

*11/11/18*



# Picklist Print

Tuesday, November 15, 2011 9:20:44 AM

Page 1

4

Work Order ID: 76452

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 11/14/2011

Required Date: 11/16/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev B 06-02-07 ECN773 dwg rev. D EC  
IPP Rev:C 06-03-28 Update Manuf. Instructions JLM  
IPP rev D 07.03.20 revF dwg EC  
IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD  
IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC  
IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H 11.11.14 AS PER REV.I  
DD verified by:JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| ALS4-1032-130<br>Insert         |                        | Purchased     | No          |                     |                  |                 | Each               | 2,000.0000     |             | 14           |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  | <u>Loc Code</u>    |                |             |              |               |                |        |
|                                 |                        |               |             | ST280               |                  | 1984            |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 119084              |                  | 1984            |                    |                |             |              |               |                |        |
|                                 |                        |               |             | ST281               |                  | 16              |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 117717              |                  | 2               |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 118237              |                  | 12              |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 118312              |                  | 2               |                    |                |             |              |               |                |        |
| ALS4-1032-225<br>Insert         |                        | Purchased     | No          |                     |                  |                 | Each               | 2,181.0000     |             | 8            |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  | <u>Loc Code</u>    |                |             |              |               |                |        |
|                                 |                        |               |             | ST281               |                  | 2181            |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 108696              |                  | 285             |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 110768              |                  | 62              |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 118386              |                  | 858             |                    |                |             |              |               |                |        |
|                                 |                        |               |             | 118966              |                  | 976             |                    |                |             |              |               |                |        |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, November 15, 2011 9:20:44 AM

Page 2

Work Order ID: 76452

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 11/14/2011

Required Date: 11/16/2011

Start Qty: 1.00

Required Qty: 1.00

AN3C4A Purchased No Each 2,101.0000

6

BR 11-11-17.

BOLT

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| ST350    | 2101    |          |
| 117313   | 2       |          |
| 117688   | 5       |          |
| 117872   | 22      |          |
| 118112   | 16      |          |
| 118451   | 2       |          |
| 118706   | 92      |          |
| 118838   | 962     |          |
| 119328 ✓ | 1000    |          |

AN3C5A Purchased No Each 987.0000

4

BR 11-11-17.

Bolt

| Location | Loc Qty | Loc Code |
|----------|---------|----------|
| FP-A     | 7       |          |
| 115835   | 7       |          |
| ST350    | 980     |          |
| 116419   | 28      |          |
| 117343   | 17      |          |
| 117764   | 166     |          |
| 117872   | 2       |          |
| 118451 ✓ | 267     |          |
| 119127   | 500     |          |

AN960C10L \* NAS1149C0332R ✓ Purchased No

washer

Each 0.0000

10

BR 11-11-17.

119124

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                                |                                 |                |                           |                       |                          |
|------|------|----------------------------------|--------------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action<br>Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng           | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |
|      |      |                                  |                                |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



# Picklist Print

Tuesday, November 15, 2011 9:20:44 AM

Page 3

Work Order ID: 76452

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 11/14/2011

Required Date: 11/16/2011

Start Qty: 1.00

Required Qty: 1.00

D2646  
Aft Cap

Manufactured No

Each 243.0000

1

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP002           | 226            |                 |
| 73294           | 26             |                 |
| 73825           | 200            |                 |
| FP004           | 5              |                 |
| 68280           | 5              |                 |
| FP006           | 5              |                 |
| 62678           | 5              |                 |
| FP-4            | 3              |                 |
| 70945           | 1              |                 |
| 71070           | 2              |                 |
| fp5             | 4              |                 |
| 71038           | 4              |                 |

D3537-1  
Wearpad

Manufactured No

Each 80.0000

-1

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP002           | 73             |                 |
| 74436           | 56             |                 |
| 74597           | 17             |                 |
| FP017           | 7              |                 |
| 69817           | 5              |                 |
| 70686           | 2              |                 |

D3537-7  
Wearpad

Manufactured No

Each 19.0000

-1

| <u>Location</u> | <u>Loc Qty</u> | <u>Loc Code</u> |
|-----------------|----------------|-----------------|
| FP              | 4              |                 |
| 71689           | 4              |                 |
| FP001           | 12             |                 |
| 74617           | 12             |                 |
| FP017           | 3              |                 |
| 71689           | 3              |                 |

Tuesday, November 15, 2011 9:20:45 AM

Shop Packet Print

Page 3

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries

# Picklist Print

Tuesday, November 15, 2011 9:20:45 AM

Page 4

Work Order ID: 76452

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 11/14/2011

Required Date: 11/16/2011

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

Each 104.0000

4

SPACER

Location

Loc Qty

Loc Code

LG

12

71850

12

LG001

92

72851

92

D3672-1

Manufactured No

Each 688.0000

2

Phenolic Washer

Location

Loc Qty

Loc Code

FP-A

424

52505

0

66821

424

ST074

264

72229

264

D4095-047

Manufactured No

Each 0.0000

Wearpad Assembly

D4095-049

Manufactured No

Each 0.0000

Wearpad Assembly

~~76208~~ 76208

76217

① BR 11-11-17

① BR 11-11-17

D3391-025

73013

1X BR 11-11-17

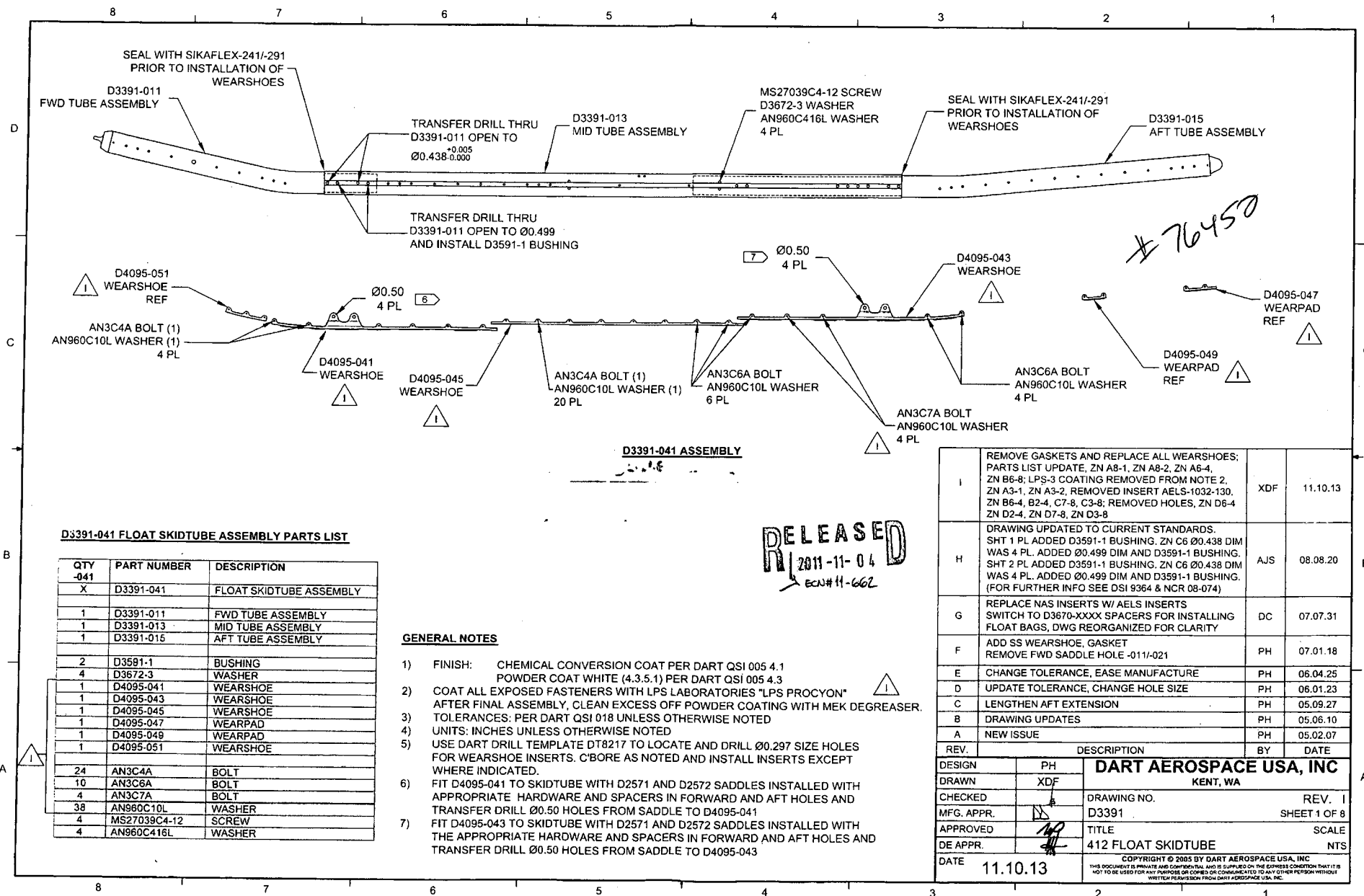
| W/O: |      | WORK ORDER CHANGES |    |      |     |                                     |                          |
|------|------|--------------------|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Chief Eng /<br>Prod Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                     |                          |
|      |      |                    |    |      |     |                                     |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                 |                |                           |                       |                          |
|------|------|----------------------------------|-----------------------------|---------------------------------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                 |                | Verification<br>Section C | Approval<br>Chief Eng | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Chief Eng        | Action Description<br>Chief Eng | Sign &<br>Date |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |
|      |      |                                  |                             |                                 |                |                           |                       |                          |

**NOTE:** Date & initial all entries



**D3391-041 FLOAT SKIDTUBE ASSEMBLY PARTS LIST**

| QTY<br>-041 | PART NUMBER  | DESCRIPTION             |
|-------------|--------------|-------------------------|
| X           | D3391-041    | FLOAT SKIDTUBE ASSEMBLY |
| 1           | D3391-011    | FWD TUBE ASSEMBLY       |
| 1           | D3391-013    | MID TUBE ASSEMBLY       |
| 1           | D3391-015    | AFT TUBE ASSEMBLY       |
| 2           | D3591-1      | BUSHING                 |
| 4           | D3672-3      | WASHER                  |
| 1           | D4095-041    | WEARSHOE                |
| 1           | D4095-043    | WEARSHOE                |
| 1           | D4095-045    | WEARSHOE                |
| 1           | D4095-047    | WEARSHOE                |
| 1           | D4095-049    | WEARSHOE                |
| 1           | D4095-051    | WEARSHOE                |
| 24          | AN3C4A       | BOLT                    |
| 10          | AN3C6A       | BOLT                    |
| 4           | AN3C7A       | BOLT                    |
| 38          | AN960C10L    | WASHER                  |
| 4           | MS27039C4-12 | SCREW                   |
| 4           | AN960C416L   | WASHER                  |

**GENERAL NOTES**

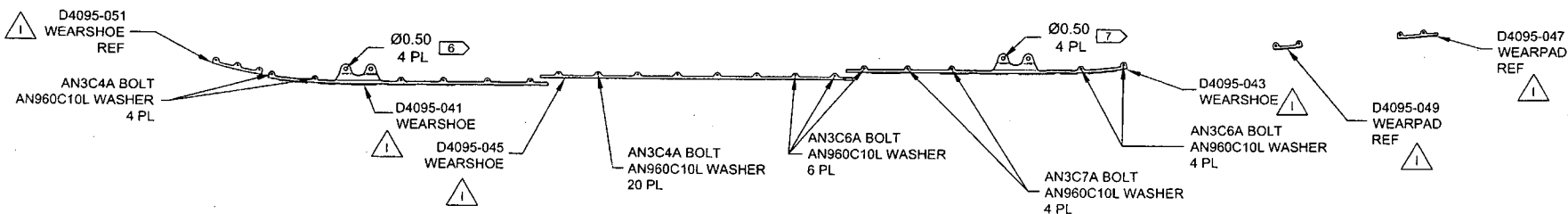
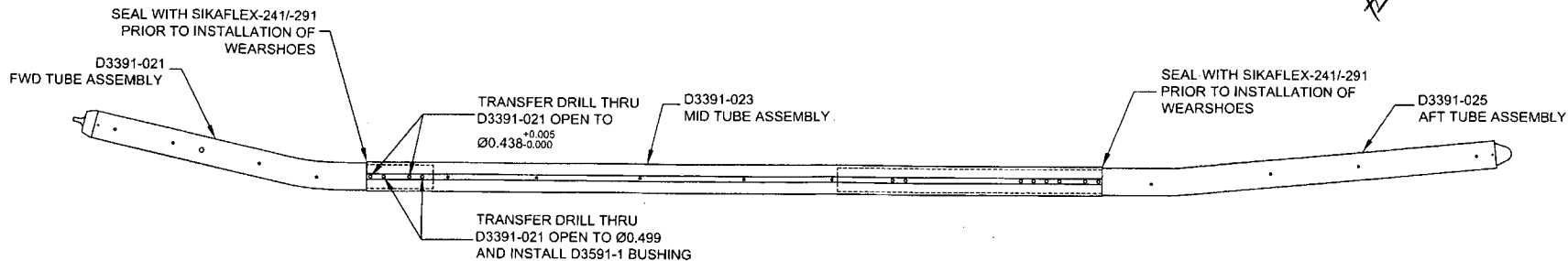
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON"  
AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES  
FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT  
WHERE INDICATED.
- 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH  
APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND  
TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH  
THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND  
TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

**RELEASED**  
2011-11-04  
ECN#11-662

|            |   |  |              |
|------------|---|--|--------------|
| I          | REMOVE GASKETS AND REPLACE ALL WEARSHOES;<br>PARTS LIST UPDATE, ZN A8-1, ZN A8-2, ZN A6-4,<br>ZN B6-8; LPS-3 COATING REMOVED FROM NOTE 2,<br>ZN A3-1, ZN A3-2, REMOVED INSERT AELS-1032-130,<br>ZN B6-4, B2-4, C7-8, C3-8; REMOVED HOLES, ZN D6-4<br>ZN D2-4, ZN D7-8, ZN D3-8                      | XDF  | 11.10.13     |
| H          | DRAWING UPDATED TO CURRENT STANDARDS.<br>SHT 1 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM<br>WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING.<br>SHT 2 PL ADDED D3591-1 BUSHING. ZN C6 Ø0.438 DIM<br>WAS 4 PL. ADDED Ø0.499 DIM AND D3591-1 BUSHING.<br>(FOR FURTHER INFO SEE DSI 9364 & NCR 08-074) | AJS  | 08.08.20     |
| G          | REPLACE NAS INSERTS W/ AELS INSERTS<br>SWITCH TO D3670-XXXX SPACERS FOR INSTALLING<br>FLOAT BAGS, DWG REORGANIZED FOR CLARITY   | DC   | 07.07.31     |
| F          | ADD SS WEARSHOE, GASKET<br>REMOVE FWD SADDLE HOLE -011/-021   | PH   | 07.01.18     |
| E          | CHANGE TOLERANCE, EASE MANUFACTURE  | PH   | 06.04.25     |
| D          | UPDATE TOLERANCE, CHANGE HOLE SIZE  | PH   | 06.01.23     |
| C          | LENGTHEN AFT EXTENSION  | PH   | 05.09.27     |
| B          | DRAWING UPDATES   | PH   | 05.06.10     |
| A          | NEW ISSUE   | PH   | 05.02.07     |
| REV.       | DESCRIPTION   | BY   | DATE         |
| DESIGN     | PH  | <b>DART AEROSPACE USA, INC</b><br>KENT, WA   |              |
| DRAWN      | XDF   |  |              |
| CHECKED    |   | DRAWING NO.  | REV. I       |
| MFG. APPR. |   | D3391  | SHEET 1 OF 8 |
| APPROVED   |   | TITLE  | SCALE        |
| DE APPR.   |   | 412 FLOAT SKIDTUBE   | NTS          |
| DATE       | 11.10.13  | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS<br>NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT<br>WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |              |



# 76458



# **D3391-043 ASSEMBLY**





## **D3391-043 FLOAT SKIDTUBE ASSEMBLY PARTS LIST**

| QTY | PART NUMBER | DESCRIPTION             |
|-----|-------------|-------------------------|
| X   | D3391-043   | FLOAT SKIDTUBE ASSEMBLY |
| 1   | D3391-021   | FWD TUBE ASSEMBLY       |
| 1   | D3391-023   | MID TUBE ASSEMBLY       |
| 1   | D3391-025   | AFT TUBE ASSEMBLY       |
| 2   | D3591-1     | BUSHING                 |
| 1   | D4095-041   | WEARSHOE                |
| 1   | D4095-043   | WEARSHOE                |
| 1   | D4095-045   | WEARSHOE                |
| 1   | D4095-047   | WEARPAD                 |
| 1   | D4095-049   | WEARPAD                 |
| 1   | D4095-051   | WEARSHOE                |
| 24  | AN3C4A      | BOLT                    |
| 10  | AN3C6A      | BOLT                    |
| 4   | AN3C7A      | BOLT                    |
| 38  | AN960C10L   | WASHER                  |

## **GENERAL NOTES**

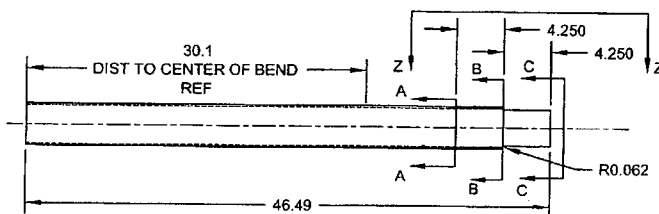
- 1) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 2) COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) USE DART DRILL TEMPLATE DT8217 TO LOCATE AND DRILL Ø0.297 SIZE HOLES FOR WEARSHOE INSERTS. C'BORE AS NOTED AND INSTALL INSERTS EXCEPT WHERE INDICATED.
- 6) FIT D4095-041 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-041
- 7) FIT D4095-043 TO SKIDTUBE WITH D2571 AND D2572 SADDLES INSTALLED WITH THE APPROPRIATE HARDWARE AND SPACERS IN FORWARD AND AFT HOLES AND TRANSFER DRILL Ø0.50 HOLES FROM SADDLE TO D4095-043

RELEASED  
2011-11-04

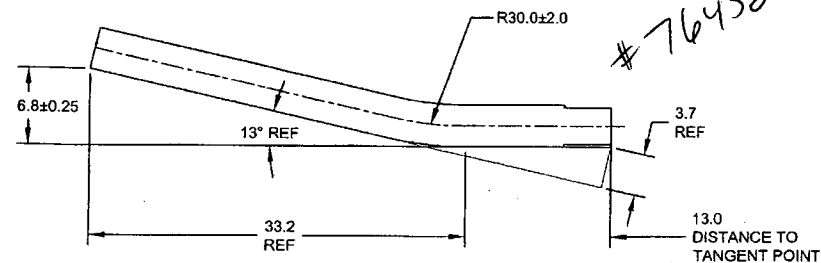
|  |   |   |              |
|--|---|---|--------------|
| DESIGN   | PH  | <b>DART AEROSPACE USA, INC</b>              |              |
| DRAWN  | XDF   | KENT, WA                                    |              |
| CHECKED  |  | DRAWING NO.                                 | REV.         |
| MFG. APPR.   |  | D3391                                       | SHEET 2 OF 8 |
| APPROVED   |  | TITLE                                       | SCALE        |
| DE APPR.   |  | 412 FLOAT SKIDTUBE                          | NTS          |
| DATE   | 11.10.13  | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC |              |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |   |   |              |



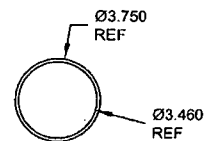




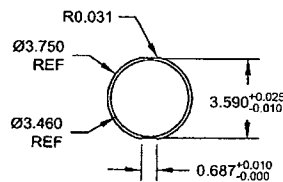
**D3391-1 CUTTING DETAIL**  
(MAKE FROM D6013-047 SKIDTUBE MATERIAL)



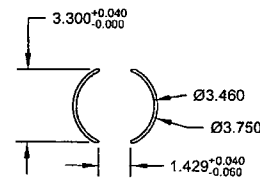
**D3391-011/-021 BENDING DETAIL**  
(MAKE FROM D3391-1)



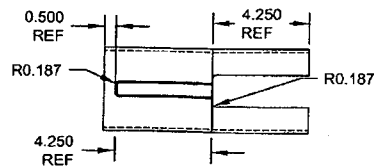
**SECTION A-A**  
SCALE 2X



**SECTION B-B**  
SCALE 2X



**SECTION C-C**  
SCALE 2X

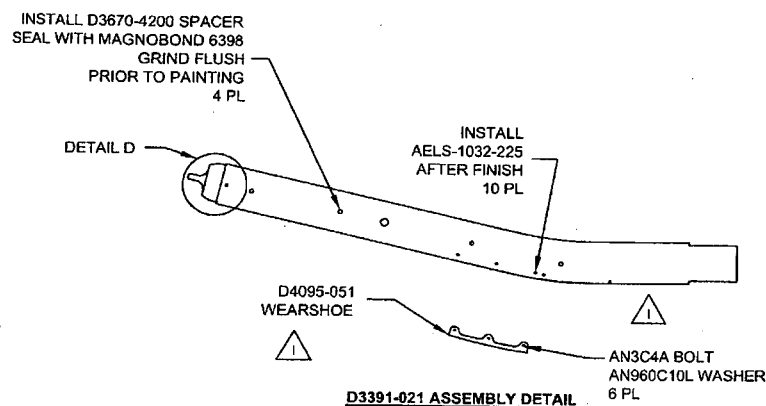
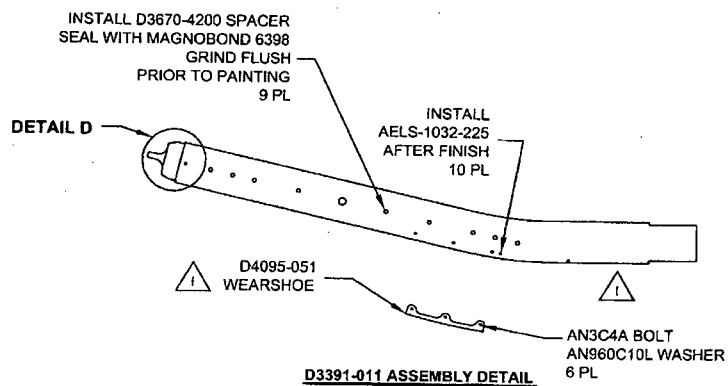
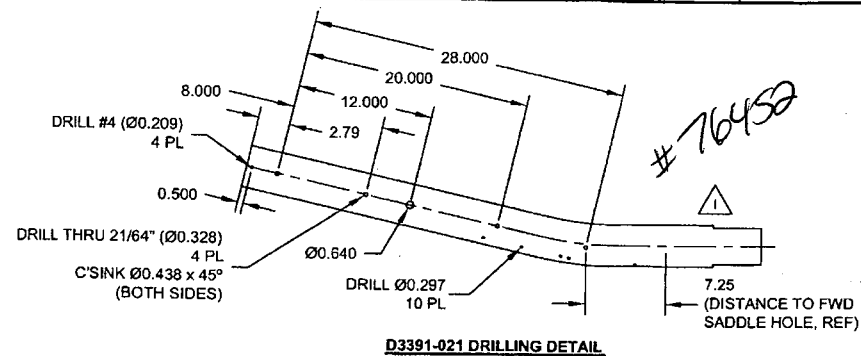
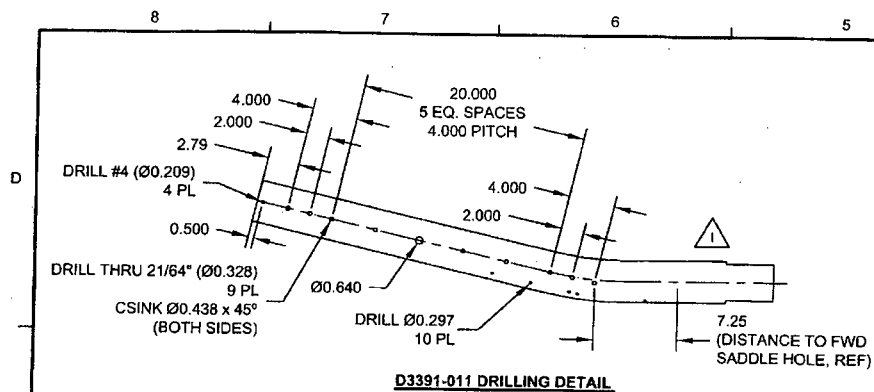


**VIEW Z-Z**  
SCALE 2X

RELEASED  
2011-11-04

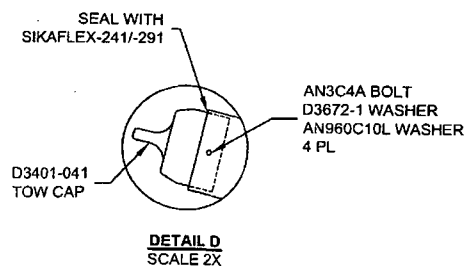
|            |          |  |              |
|------------|----------|--|--------------|
| DESIGN     | PH       | <b>DART AEROSPACE USA, INC</b>   |              |
| DRAWN      | XDF      | KENT, WA   |              |
| CHECKED    |          | DRAWING NO.  | REV. I       |
| MFG. APPR. |          | D3391  | SHEET 3 OF 8 |
| APPROVED   |          | TITLE  | SCALE        |
| DE APPR.   |          | 412 FLOAT SKIDTUBE   | NTS          |
| DATE       | 11.10.13 | <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> |              |





**D3391-011/-021 FWD TUBE ASSEMBLY PARTS LIST**

| QTY - 011 | QTY - 021 | PART NUMBER   | DESCRIPTION       |
|-----------|-----------|---------------|-------------------|
| X         |           | D3391-011     | FWD TUBE ASSEMBLY |
|           | X         | D3391-021     | FWD TUBE ASSEMBLY |
| 1         | 1         | D3401-041     | TOW CAP           |
| 9         | 4         | D3670-4200    | SPACER            |
| 4         | 4         | D3672-1       | WASHER            |
| 1         | 1         | D4095-051     | WEARSHOE          |
| 1         | 1         | D6013-047     | FWD TUBE          |
| 10        | 10        | AN3C4A        | BOLT              |
| 10        | 10        | AN960C10L     | WASHER            |
| 10        | 10        | AELS-1032-225 | INSERT            |

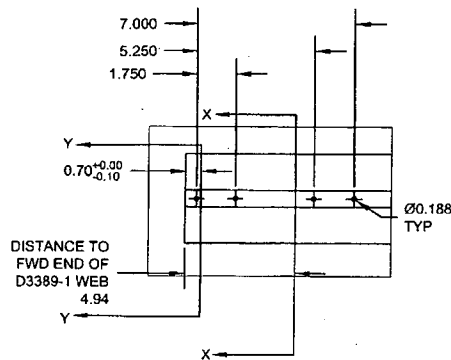


|            |          |  |              |
|------------|----------|--|--------------|
| DESIGN     | PH       | <b>DART AEROSPACE USA, INC</b>   |              |
| DRAWN      | XDF      | KENT, WA   |              |
| CHECKED    |          | DRAWING NO.  | REV. 1       |
| MFG. APPR. |          | D3391  | SHEET 4 OF 8 |
| APPROVED   |          | TITLE  | SCALE        |
| DE APPR.   |          | 412 FLOAT SKIDTUBE   | NTS          |
| DATE       | 11.10.13 | <small>COPYRIGHT © 2005 BY DART AEROSPACE USA, INC<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.</small> |              |

RELEASED  
2011-11-04

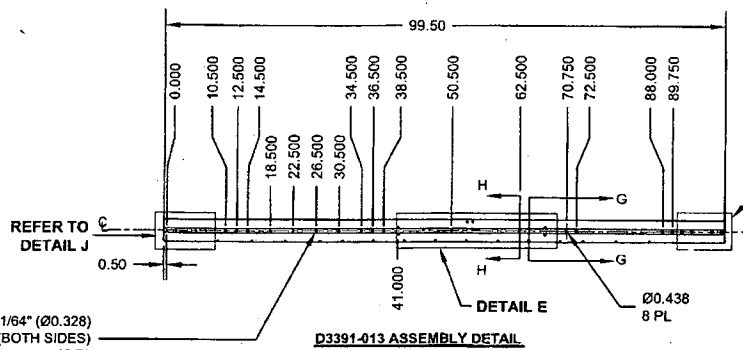


8 7 6 5 4 3 2 1



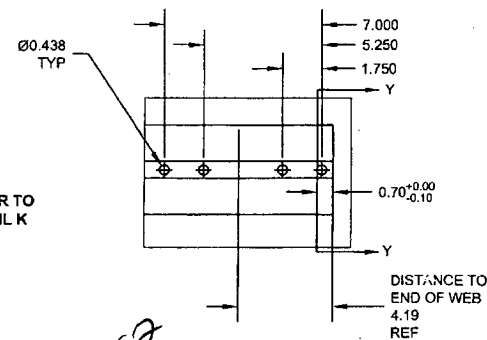
**DETAIL J**  
SCALE 4X

DRILL THRU 21/64" (Ø0.328)  
CSINK Ø0.438 X 45° (BOTH SIDES)  
12 PL



**D3391-013 ASSEMBLY DETAIL**

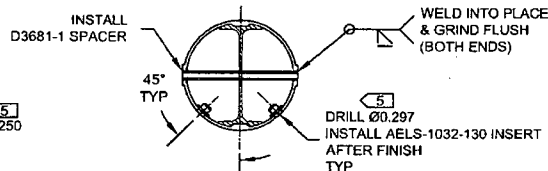
REFER TO  
DETAIL K



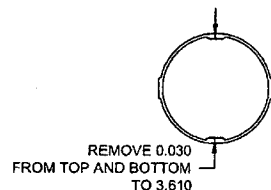
**DETAIL K**  
SCALE 4X



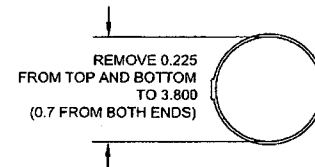
**SECTION G-G**  
SCALE 5X



**SECTION H-H**  
SCALE 5X



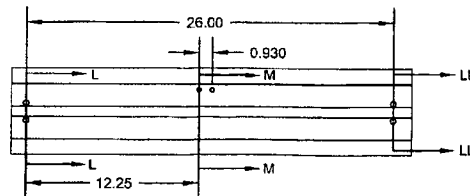
**SECTION X-X**  
SCALE 5X



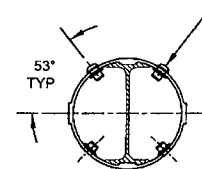
**SECTION Y-Y**  
SCALE 5X

**D3391-013 MID TUBE ASSEMBLY PARTS LIST**

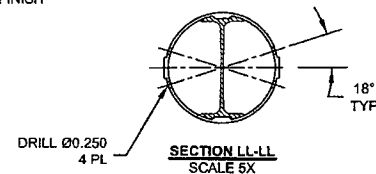
| QTY  | PART NUMBER   | DESCRIPTION       |
|------|---------------|-------------------|
| -013 |               |                   |
| X    | D3391-013     | MID TUBE ASSEMBLY |
| 1    | D2500-1-100   | EXTRUSION         |
| 1    | D3389-1       | WEB               |
| 4    | D3672-1       | WASHER            |
| 4    | D3672-3       | WASHER            |
| 12   | D3681-1       | SPACER            |
| 24   | AELS-1032-130 | INSERT            |
| 4    | ALS4-428-165  | INSERT            |
| 4    | AN960C10L     | WASHER            |
| 4    | AN960C416L    | WASHER            |
| 4    | MS27039C1-09  | SCREW             |
| 4    | MS27039C4-08  | SCREW             |



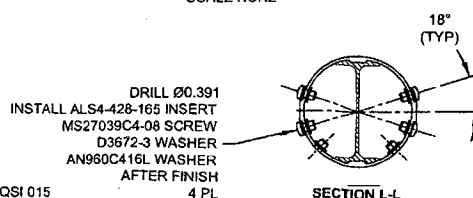
**DETAIL E**  
SCALE NONE



**SECTION M-M**  
SCALE 5X



**SECTION LL-LL**  
SCALE 5X



**SECTION L-L**  
SCALE 5X

**D3391-013 MID TUBE ASSEMBLY**

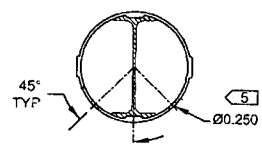
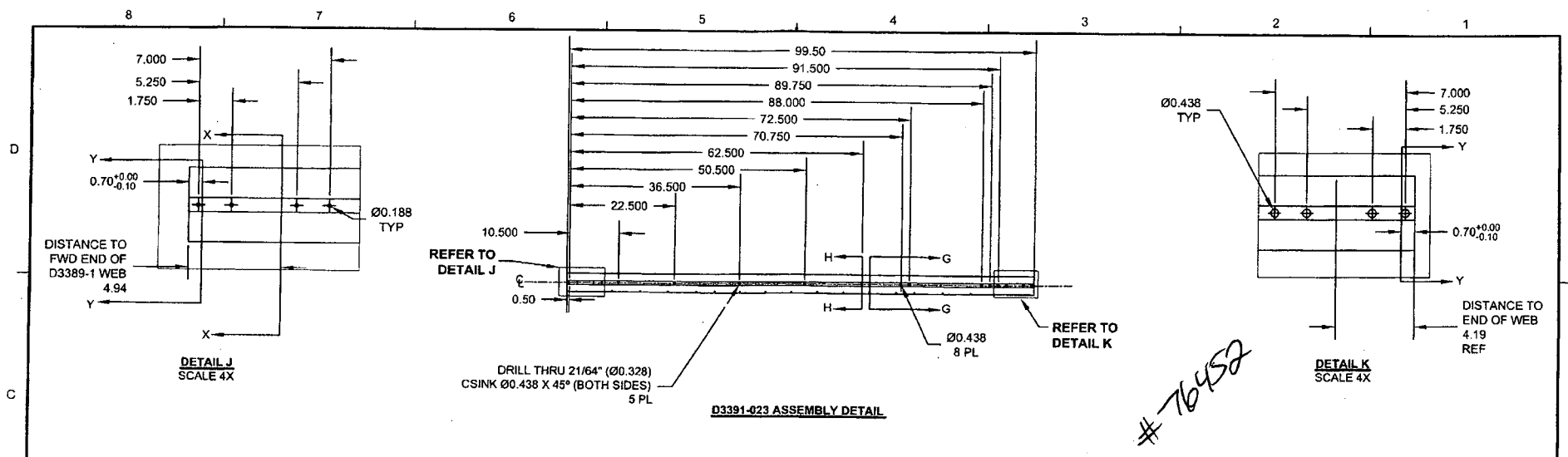
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
- 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-2411-291 PER QSI 015
- 3) WELDING: PER DART QSI 004

RELEASED  
2011-11-04

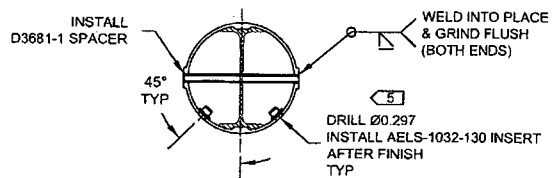
|            |          |   |              |
|------------|----------|---|--------------|
| DESIGN     | PH       | <b>DART AEROSPACE USA, INC</b>  |              |
| DRAWN      | XDF      | KENT, WA  |              |
| CHECKED    |          | DRAWING NO.   | REV. I       |
| MFG. APPR. |          | D3391   | SHEET 5 OF 8 |
| APPROVED   |          | TITLE   | SCALE        |
| DE APPR.   |          | 412 FLOAT SKIDTUBE  | NTS          |
| DATE       | 11.10.13 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC.<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |              |

8 7 6 5 4 3 2 1

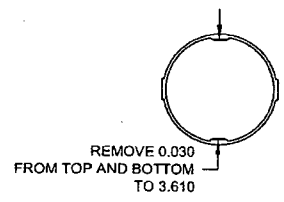




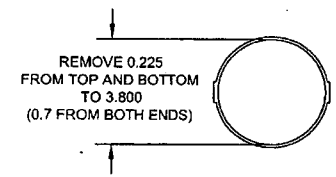
SECTION G-G  
SCALE 5X



SECTION H-H  
SCALE 5X



SECTION X-X  
SCALE 5X



SECTION Y-Y  
SCALE 5X

**D3391-023 MID TUBE ASSEMBLY PARTS LIST**

| QTY - 023 | PART NUMBER   | DESCRIPTION       |
|-----------|---------------|-------------------|
| X         | D3391-023     | MID TUBE ASSEMBLY |
| 1         | D2500-1-100   | EXTRUSION         |
| 1         | D3389-1       | WEB               |
| 5         | D3681-1       | SPACER            |
| 20        | AELS-1032-130 | INSERT            |

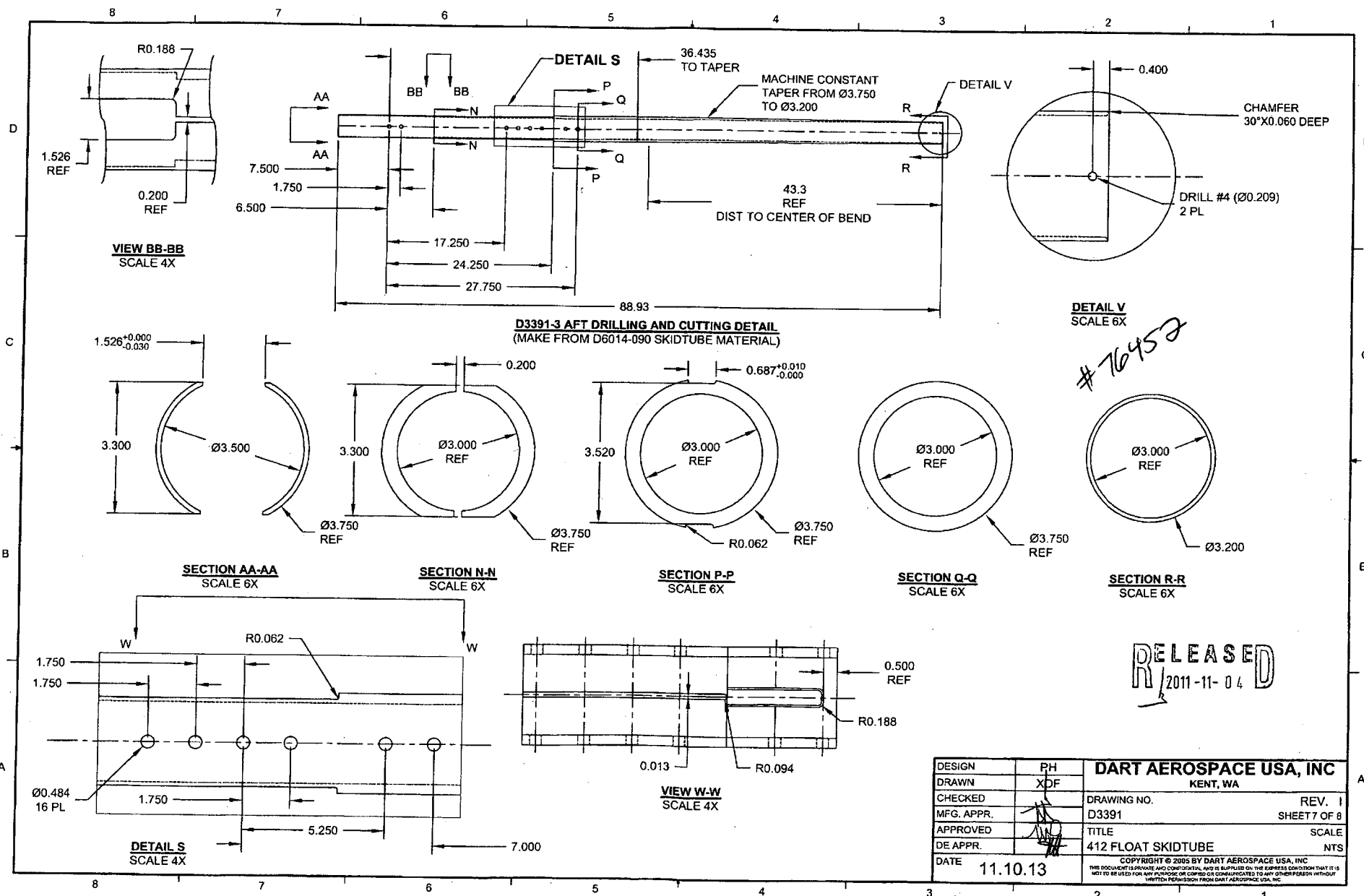
- D3391-023 MID TUBE ASSEMBLY**
- 1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
  - 2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
  - 3) WELDING: PER DART QSI 004



|            |  |          |   |
|------------|--|----------|---|
| DESIGN     |  | PH       | DART AEROSPACE USA, INC<br>KENT, WA   |
| DRAWN      |  | XDF      |   |
| CHECKED    |  |          | DRAWING NO. REV. I  |
| MFG. APPR. |  |          | D3391 SHEET 6 OF 8  |
| APPROVED   |  |          | TITLE SCALE   |
| DE APPR.   |  |          | 412 FLOAT SKIDTUBE NTS  |
| DATE       |  | 11.10.13 | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC.<br>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED BY THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |

RELEASED  
2011-11-04







|  |   |   |              |
|--|---|---|--------------|
| DESIGN   | PH  | <b>DART AEROSPACE USA, INC</b>              |              |
| DRAWN  | XDF   | KENT, WA                                    |              |
| CHECKED  |   | DRAWING NO.                                 | REV. 1       |
| MFG. APPR.   |  | D3391                                       | SHEET 7 OF 8 |
| APPROVED   |   | TITLE                                       | SCALE        |
| DE APPR.   |  | 412 FLOAT SKIDTUBE                          | NTS          |
| DATE   | 11.10.13  | COPYRIGHT © 2005 BY DART AEROSPACE USA, INC |              |
| THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC. |   |   |              |



